

**Ontario Roof Consultants & Associates** 

## ROOF DIAGNOSTIC ANALYSIS ORC-08-518

FOR

Northam Industrial Park P.O. Box 415 Cobourg, Ontario K9A 4L1



Site:

Building #7 Northam Industrial Park P.O. Box 415 Cobourg, Ontario K9A 4L1

### **Prepared By:**

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# **EXECUTIVE SUMMARY**

This section of the report is intended to provide the reader with a precise review of the overall data obtained from the physical diagnostic analysis of the roof areas documented in the preceding Condition Analysis section.

#### Roof Decks 101 & 102

Roof Decks 101 and 102 provide weatherproofing protection to the north and south front sections of the facility. These roof systems have been constructed with standard built-up roof assemblies incorporating hot asphalt. These roof systems were replaced in 2003 and appear to be performing as designed.

Destructive testing was not performed as a result of the recent age of the membranes and potential warranty implications.

Upon speaking with available building personnel, there were no reported roof leaks on this facility at the time of our investigation.

Deficiencies were not observed at the time of inspection.

Based on our analysis it is our opinion Roof Decks 101 and 102 should continue to provide reasonable weatherproofing protection for the next 20 plus years providing the repairs prescribed in the Recommendations Section are performed in accord with sound roofing practices.



#### Roof Deck 201

Roof Deck 201 provides weatherproofing protection to the southern section of the facility. The roof system constructed over this area is a mechanically fastened Polyvinyl Chloride (PVC) assembly. Roof Deck 201 is 28 years of age.

A Tramex moisture survey conducted over Roof Deck 201 determined this roof area to be in a dry condition. Based on the current condition of the PVC field membrane destructive testing procedures were not performed. The analysis was restricted to a visual inspection only.

Upon speaking with available building personnel, there were no reported roof leaks on this facility at the time of our investigation.

Typical to most single-ply membranes, the perimeter flashing membrane has lost its adhesion to the vertical and horizontal substrates causing a tenting effect. This tenting effect will subject the membrane joint locations to continual stress and in some instances cause separation of the membrane joint introducing moisture into the roof assembly.

During our investigation, locations of ponding water were observed and in a couple of instances to a depth of several inches. Various locations were observed where insulation fasteners are sitting proud of the insulation plate as a result of backing-out or were insufficiently set into the deck. Also noted were improper penetrations seals and rusting of roof top units at flashing interfaces.

Based on our analysis it is our opinion Roof Deck 201 should continue to provide reasonable weatherproofing protection for the next five to six plus years providing the repairs prescribed in the Recommendations Section are performed in accord with sound roofing practices.



#### Roof Deck 202

Roof Deck 202 provides weatherproofing protection to the center section of the facility. The roof system constructed over this area is a ballasted, mechanically fastened Polyvinyl Chloride (PVC) assembly. Roof Deck 202 is 28 years of age.

Based on the current condition and configuration of the PVC field membrane destructive testing procedures were not performed. The analysis was restricted to a visual assessment only. Tramex testing on this type of construction is not possible.

Upon speaking with available building personnel, there were no reported roof leaks on this facility at the time of our investigation.

Typical to most single ply membranes, the perimeter flashing membrane has lost its adhesion to the vertical and horizontal substrates causing a tenting effect. This tenting effect will subject the membrane joint locations to continual stress and in some instances cause separation of the membrane joint introducing moisture into the roof assembly. Also noted were improper penetration seals and rusting of roof top units at flashing interfaces.

Based on our analysis it is our opinion Roof Deck 202 should continue to provide reasonable weatherproofing protection for the next seven to eight plus years providing the repairs prescribed in the Recommendations Section are performed in accord with sound roofing practices.



#### Roof Deck 203

The roof over this facility has been constructed with a mechanically fastened polyvinyl chloride (PVC) retrofit membrane assembly and is approximately twenty plus years of age.

Upon speaking with available building personnel, there were no reported roof leaks on this facility at the time of our investigation.

Based on the current condition and configuration of the PVC field membrane destructive testing procedures were not performed. The analysis was restricted to a visual assessment only. Tramex testing on this type of construction is not possible.

Typical to most single ply membranes, the perimeter flashing membrane has lost its adhesion to the vertical and horizontal substrates causing a "tenting" effect. This "tenting" effect will subject the membrane joint locations to continual stress and in some instances cause separation of the membrane joint introducing moisture into the roof assembly. Also noted were improper penetrations seals and rusting of roof top units at flashing interfaces.

Based on our analysis it is our opinion Roof Deck 203 should continue to provide reasonable weatherproofing protection for the next seven to eight plus years providing the repairs prescribed in the Recommendations Section are performed in accord with sound roofing practices.